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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,892	12/02/2003	Youn-Gyoung Chang	053785-5164	2421
30827	7590	03/27/2006	[REDACTED]	EXAMINER
MCKENNA LONG & ALDRIDGE LLP 1900 K STREET, NW WASHINGTON, DC 20006			CHUNG, DAVID Y	
			[REDACTED]	ART UNIT
				PAPER NUMBER
			2871	

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/724,892	CHANG ET AL. <i>[Signature]</i>	
	<b>Examiner</b>	<b>Art Unit</b>	
	David Y. Chung	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 11 January 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) 9-26 is/are withdrawn from consideration.
- 5) Claim(s) 2-6 is/are allowed.
- 6) Claim(s) 1,7,8,27,28,33 and 34 is/are rejected.
- 7) Claim(s) 29-32 and 35-38 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    - a) All    b) Some \* c) None of:
      1. Certified copies of the priority documents have been received.
      2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
      3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>03 May 2004</u> . | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claims 1, 7, 8, 27 and 33 rejected under 35 U.S.C. 103(a) as being unpatentable over Kim (U.S. 6,255,130).**

Kim discloses a thin film transistor array substrate. Note in figures 1 and 2, the insulating substrate 10, gate line 22, gate electrode 26, gate pad 24, storage electrode 28, pixel electrode 82, gate insulating layer 30, ohmic contact layer patterns 55, 56 and 58, semiconductor patters 42 and 48, data line 62, data pad 64, drain electrode 66, source electrode 65, and passivation layer 70. Figure 1 shows a thin film transistor at the intersection of gate and data lines. See column 7, line 1 – column 8, line 65.

Kim does not disclose a black matrix. However, black matrices were common and conventional for preventing light leakage. This was necessary to prevent degradation of the contrast ratio. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide a black matrix in order to maintain an acceptable contrast ratio.

Kim does not disclose a color filter. However, color filters were conventional means by which to provide a full color display. It would have been obvious to one of ordinary skill in the art at the time of invention to provide a color filter since they were conventional, and conventional features were generally cost effective and reliable.

As to claims 28 and 34, Kim teaches that the passivation layer can be made of an insulating layer such as silicon nitride. See column 8, lines 25-35.

***Allowable Subject Matter***

Claims 2-6 allowed.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record did not teach or suggest three separate insulating layers disposed as recited in claim 2, and also did not teach or suggest a double layered gate pad terminal, a double layered data pad terminal, and a double layered connecting line all disposed on the third insulating layer.

Claims 29-32 and 35-38 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record did not teach or suggest the claimed structure of the light-shielding pattern or the seal pattern.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (703) 306-0155. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.

David Chung  
GAU 2871  
03/20/06

*Andrew Schechter*  
**ANDREW SCHECHTER**  
**PRIMARY EXAMINER**